Appraisal and coping strategy use

in victims of school bullying.

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Abstract

Background

Transactional models of coping (Lazarus and Folkman, 1984) can contribute to our understanding of why some children cope effectively with bullying while others suffer negative outcomes. However, previous research has relied on coping measures that are not comparable with adult measures, restricting investigation of developmental trends. Additionally, previous research has not included appraisals when measuring coping using an established coping measure.

Aims

To examine the factor structure of a coping measure that is directly comparable with the adult literature; to examine the content of pupils' threat and challenge appraisals concerning bullying; and to examine the relationships between appraisals and coping strategy use within the victims of school bullying.

Sample

Participants were 459 children aged 9 - 14 years.

Method

A self-report bullying questionnaire, incorporating Halstead et al.'s (1993) adolescent version of the Ways of Coping Checklist, was completed by participants. Also included were control, threat and challenge appraisal items.

Results

Confirmatory factor analysis confirmed that Halstead et al.'s four-factor model of coping is valid for a population of school bullying victims. Content validity of items used to measure threat and challenge appraisal was demonstrated. Ambiguity of challenge appraisal influenced the use of Wishful Thinking, Seeks Social Support and Problem Focused coping. Wishful Thinking was also influenced by control appraisal. Avoidance coping was not influenced by the appraisals measured.

Conclusion

Halstead et al.'s Revised Ways of Coping Checklist can be used to measure coping amongst child and adolescent victims of bullying. Furthermore, including appraisal variables improves our understanding of individual differences between victims' coping strategy choices.

Introduction

It has been suggested that future advances in tackling bullying may rely upon an improved understanding of the psychological variables implicated in bully-victim problems (Sutton, Smith, and Swettenham, 1999). When examining bully-victim problems from the perspective of the victim, perhaps the most important variables are those relating to coping. Understanding the coping processes in the victims of bullying can improve our ability to help this group since a clearer idea of *why* children and adolescents cope, as well as *how* they cope, will allow the targeting of specific anti-bullying strategies toward specific groups of children (Hunter, Boyle and Warden, 2002).

Transactional Coping Theory

Transactional theories of coping (e.g. Lazarus and Folkman, 1984) provide a useful psychological framework for examining coping processes as they detail both coping strategies and factors influencing the choice of one strategy over another. Alternative coping taxonomies exist (e.g. Billings and Moos' (1984) *Problem-*, *Emotion-*, and *Appraisal-Focused* coping; Roth and Cohen's (1986) *Approach-Avoidance* coping) but Lazarus and Folkman's (1984) *Problem-Focused* (directed toward managing or altering the problem causing distress) and *Emotion-Focused* (directed at regulating the emotional response) coping formulation is the most widely known and researched. Within these two broad categories are more fine-grained distinctions such as *Wishful Thinking, Distancing, Emphasising the Positive, Self-Blame, Tension Reduction,* and *Seeking Social Support* (Folkman and Lazarus, 1985).

Importantly, coping strategy use is *not* considered to be a trait phenomenon: instead, situation specific appraisals influence the selection of coping strategy (Lazarus and Folkman, 1984) while appraisals themselves are influenced both by situation and person variables (see Figure 1). Certain aspects of the situation are thought to influence coping more directly than others. When situational demands are ambiguous, for example, appraisals are less reliable as the consequences for personal wellbeing as unclear, leading to a greater role for person factors in coping (Lazarus and Folkman, 1984). In fact, Lazarus and Launier (1978) suggest that ambiguity may serve to directly influence the use of certain coping strategies (for example, increased information seeking to resolve the perceived ambiguity).

Lazarus and Launier (1978) categorise appraisals as *Primary* and *Secondary*, where the former are the meanings one assigns to an event, and the latter are the evaluation of available coping options. Examples of Primary appraisals include the degree to which a situation is perceived to be a threat (i.e. negative outcomes are expected) or a challenge (i.e. positive outcomes are expected) (Lazarus and Launier, 1978). An example of Secondary appraisal is the perception of situation-specific control (Folkman, 1984), for example, whether a student feels that they can stop a peer from being aggressive toward them. The transactional model of coping is summarised in Figure 1.

Figure 1 about here

Research into both the appraisals and the coping strategies of victims of bullying has started to emerge in recent years, though most has focused on only the coping strategy use of those involved in bully-victim problems.

Coping Strategies

Bijttebier and Vertommen (1998) used the Self-Report Coping Measure (SRCM) (Causey and Dubow, 1992) to examine how children between 8 and 13 years old coped with peer arguments. Both bullies and bully-victims used externalising strategies (such as swearing) to deal with peer arguments. In girls, indirect victimisation was associated with internalising strategies (such as worrying about the problem), while in boys direct victimisation was associated with internalising.

Also using the SRCM, Andreou (2001) asked Greek children between 9 and 12 years of age how they cope with a peer argument. She reports a significant correlation between victimisation score (measured using Austin and Joseph's (1996) victimisation measure) and the social support scale, although this was true only for boys. Confirming Bijttebier and Vertommen's (1998) findings, Andreou also found that bully-victims were similar to bullies in their use of externalising strategies. In addition, she reports that children who are both bullies and victims (*bully-victims*) are similar to victims in their use of internalising strategies, but have significantly lower problem solving ability than either bullies or victims.

A third study carried out using the SRCM looked at how 356 American pupils aged 9 to 10 years old cope with peer problems (Kochenderfer-Ladd and Skinner, 2002). Here, self-reported frequency of peer-victimisation, defined as "*a form of peer-abuse in which a child is frequently the target of peer aggression*", was positively and significantly correlated with distancing (e.g. "*I forget the whole thing*", "*I would say I don't care*"). Moreover, internalising and externalising were also positively correlated in boys, but

only with internalising and externalising in girls. In contrast to Andreou's (2001) research, Kochenderfer-Ladd and Skinner report that victimisation and social support are not correlated, perhaps due to the slightly different situations about which pupils were asked in the two studies. For example, Andreou, (2001) and Bijttebier and Vertommen (1998) both asked about "peer arguments" while Kochenderfer-Ladd and Skinner (2002) asked about the broader category of "peer problems".

Olafsen and Viemerö (2000) asked children between 10 and 12 years old how they coped with stresses and worries at school. Children completed a measure of coping style (i.e. a measure of how they cope in general), the Life Events and Coping Inventory (LECI) (Dise-Lewis, 1988). Results indicated that Aggressive and Self-Destructive coping strategies were associated with being a bully, while male bully-victims used significantly more Aggressive strategies than uninvolved boys. Male victims did not differ in their coping style compared to uninvolved boys, though female victims of indirect bullying were more likely to use Self-Destructive strategies compared to female victims of direct aggression.

Sharp (1995) asked students between 13 and 16 years old about their coping strategy use in response to being bullied (measured using Whitney and Smith's (1993) self-report method). She reports that most common were passive coping strategies like ignoring the bully (73% of responses) and walking away (70%). Also reported were assertive strategies such as standing up for themselves (68%) and, particularly in boys, fighting back (28%). More than a quarter of the children (26%) reported passively accepting the situation.

Finally, using an observational methodology, Wilton, Craig and Pepler (2000) looked at how children aged between 8 and 13 years interacted during bullying episodes in the playground and classroom. Pupils were categorised as victims if they were described as such in two out of three assessments (self-report [Olweus, 1989]; peer-nomination [Perry, Kusel and Perry, 1988]; and a teacher nomination method). They found victims most often ignored bullies (25% of episodes) or responded using verbal (25%) or physical aggression (16%). Also used often were Acquiescence (12%), Instrumental coping (8%) and Avoidance (7%). A cluster analysis revealed coping strategies could be classified into two distinct groups: those likely to de-escalate and resolve the problem (Ignoring, Acquiescence, Avoidance, and Instrumental coping) and those likely to prolong it (Physical Aggression, Verbal Aggression, and Venting). The authors suggest that these clusters may represent coping styles typical of provocative and passive victims.

It is notable that of these six studies, only the last two looked at how students coped with bullying, with the first four asking pupils how they cope with more general problems such as peer-arguments instead. This may distort our view of how children who are the victims of bullying actually cope *with* bullying as measures of coping style have been shown to correlate poorly with situation specific coping (Schwartz, Neale, Marco, Shiffman and Stone, 1999).

Appraisals and Coping Strategies

Fewer studies have looked at the appraisals of victims of bullying yet, from a transactional perspective on coping, these are essential components of the coping process. Research examining how children and adolescents cope with stressors *other*

than bullying has identified significant associations between appraisals and coping strategy use (e.g. Bowker, Bukowski, Hymel and Sippola, 2000; Chang, 1998; Ebata and Moos, 1994; Gomez, 1997), indicating that examination of such processes among the victims of school bullying may enhance our understanding of why pupils cope in certain ways.

Hunter and Boyle (2002) examined the control appraisals among victims of bullying aged between 9 and 11 years old, where bullying was defined as an intentional, repeatedly aggressive behaviour (no mention was made regarding imbalance of power). Male victims of bullying felt more in control than female victims. Female victims felt less in control the more frequently they were bullied, but frequency did not influence the control perceptions of male victims. Finally, victims of short-term bullying (under four weeks) were significantly more likely to feel in control than were victims of longer-term bullying.

Appraisals and coping strategy use have been examined together in two studies (Hunter, et al., 2002; Hunter, Mora-Merchan and Ortega, 2000). Hunter et al. (2000) used a retrospective report methodology, asking Spanish undergraduate students about their experiences of bullying throughout their schooling. Students were given a definition of bullying which emphasised the imbalance of power between bully and victim, and the intentional, repeated nature of aggression. Students who had been bullied in Primary school reported higher perceptions of control than students bullied in Secondary school, but there were no other age or gender effects on appraisals. Students who reported a high degree of threat were more likely to report that they re-live the bullying incidents

in their adult life, while low perceived control was associated with distressing memories and flashbacks.

Hunter et al. (2002) examined the influence of control, threat, and challenge appraisals on whether or not pupils between 9 and 14 years old would tell someone about being bullied. Victim status was assigned according to the duration and frequency of aggression experienced by pupils. They report that only challenge appraisals accounted for unique variance in predicting support seeking, with greater appraisal of challenge being associated with more telling.

It is important to note that self-report survey studies of victims' strategy use have used either coping scales developed specifically for children (e.g. the LECI and the SRCM), or individual "bullying-specific" items (e.g. Hunter et al., 2002; Sharp, 1995). These create difficulties when analysing developmental trends in coping from childhood through to adult life. This is an important drawback as, given the long-term effects of bullying, there is a need for measures and models that are comparable allowing longitudinal studies (i.e. childhood through to adulthood) to be interpreted meaningfully.

Measurement of Coping

A number of studies have examined the psychometric properties of self-report instruments designed by Lazarus and Folkman (1984) (see Table 1) to measure coping strategy use in adults (Aldwin and Revenson, 1987; Folkman and Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis and Gruen, 1986; Parker, Endler and Bagby, 1993; Sørlie and Sexton, 2001; Vitaliano, Russo, Carr, Maiuro and Becker,

1985). Using a mixture of both confirmatory and exploratory factor analysis, such studies have supported the presence of between 5 and 8 categories of coping behaviours in adults, with the exception of Parker et al. (1993) who failed to confirm this model in one of their two samples.

Table 1 about here

Research using other measures of coping, in both adults and children, has found between three and six factors (Amirkhan, 1990; Ayers, Sandler, West and Roosa, 1996; Billings and Moos, 1984; Causey and Dubow, 1992; Endler and Parker, 1990; Lyne and Roger, 2000; Phelps and Jarvis, 1994; Rossman, 1992), with Carver, Scheier and Weintraub (1989) and McCrae (1984) proving exceptions with fourteen and twenty eight factors respectively (see Table 2). Factors relating to Problem-Solving strategies, those directed toward Seeking Social Support, those designed to avoid facing the problem, and those aiming to relieve emotional tension in other ways (such as Wishful Thinking) are recurring themes.

Table 2 about here

Halstead, Johnson and Cunningham (1993) examined the similarity of adolescent coping strategy use with adult coping strategy use. They applied the Revised Ways of Coping Checklist (WCCL-R) (Vitaliano et al., 1985) in an adolescent sample (N = 306; mean age = 14.8 years, SD = 1.1), and carried out a confirmatory factor analysis to test the goodness of fit of Vitaliano et al.'s (1985) five-factor structure. Halstead et al.'s (1993) final factor structure, based on Vitaliano et al.'s (1985) results, is shown in Table 3.

Vitaliano et al.'s (1985) Self-Blame scale was dropped due to the rarity of its selection, but the remaining four scales (Problem-Focused, Seeks Social Support, Wishful Thinking, and Avoidance) were confirmed. However, two items previously on the Avoidance scale of Vitaliano et al. (1985), AV1 (*Felt bad you could not avoid the problem*) and AV2 (*Got angry at the people or things that caused the problem*) were placed on Halstead et al.'s Wishful Thinking scale. Three of the four confirmed factors had satisfactory reliabilities (Cronbach's alpha > .79), but Avoidance displayed poor reliability (Cronbach's alpha = .55).

Table 3 about here

In summary, transactional models of coping may prove useful in understanding the processes that underpin victims' coping efforts. This in turn should give Educational Psychologists and other professionals working with victims of school bullying a better understand of the problems faced by victims, therefore placing them in a better position to help. If research can clarify which elements of appraisal influence the selection of effective over ineffective coping strategies then professionals can try to nurture positive appraisals and reduce negative ones. This is important because any attempt to change children's coping strategy use will be at an immediate disadvantage if the appraisals that influence the use of those strategies are not also addressed.

Previous research has suffered from two drawbacks. First, the use of coping measures which present difficulties when trying to uncover developmental trends. While there is merit in the use of coping measures designed specifically for children, using coping strategy measures specific to a range of different age groups makes the interpretation of

differences between measures problematic since even similar coping factors may consist of entirely different sets of items. Although a downward extension of an adult measure cannot eliminate all problems concerning developmental trends, the use of similar (or identical) items and similar (or identical) factor structures may make comparison of scores and findings more straightforward.

The second drawback in the research is the focus on coping strategy use without an accompanying effort to understand the appraisal variables influencing choice of one strategy over another. While two studies have examined appraisal and coping strategy use, one was a retrospective design (Hunter et al., 2000) and the other only examined coping in relation to whether pupils told someone about their problem (Hunter et al., 2002). The present research was designed to address these gaps in the research literature.

Aims

1) To examine the reliability of a coping measure that is directly comparable with the adult literature and which is based upon an established theoretical psychological model.
2) To examine the content of pupils' threat and challenge appraisals.
3) To examine the relationships between appraisals and coping strategy use within the victims of school bullying.

Methodology

Participants

Participants were 459 children (48% male and 52% female) aged between 9 years 1 month and 14 years 8 months attending mainstream schools in North Lanarkshire, Scotland. North Lanarkshire is a predominantly lower socio-economic status area, with a higher uptake of free school meals (22.9%) compared to Scotland as a whole (18.4%) (SEED, 2002). Parents of all participants were sent letters explaining the aims of the study and were provided with a negative return consent form, that is, parents returned consent forms only if they did *not* want their child to participate. Two children did not participate due to unspecified parental objections. They are not included in the data presented here.

Primary School pupils were drawn from Primary 5 and Primary 7 classes (aged 9 to 11 years old) in six Primary Schools. Secondary Two classes (aged 13 to 14 years old) were drawn from four Secondary Schools and were sampled in such a way as to ensure a mixture of levels of attainment, with four "Personal and Social Development" classes (mixed attainment), two "Credit" classes (above average attainment), one "General" class (average attainment), and two "Foundation" classes (below average attainment). Two of the six Primary Schools were denominational (i.e. of a particular religious faith), while all other schools were non-denominational. Table 4 shows the breakdown of participants by school stage and gender.

Table 4 about here

Materials

A self-report questionnaire was developed following a literature review. The questionnaire was designed to collect information relating to victimisation (prevalence, location, frequency, duration, etc.) as well as information specifically relating to coping and appraisal, and consisted of 59 items in total. Overall, those reporting victimisation completed all 59 items, and those uninvolved in bullying 39 items.

An explanation of what was considered bullying was presented at the beginning of the questionnaire, and this was taken from Whitney and Smith (1993, p.7):

> *"We say a child is being bullied, or picked on when another child, or a group of children, say nasty and unpleasant things to him or her. It is also bullying when a child is hit, kicked, threatened, locked inside a room, sent nasty notes, when no one ever talks to them and things like that. These things can happen often and it is difficult for the child being bullied to defend himself or herself. It is also bullying when a child is teased repeatedly in a nasty way. But it is not bullying when two children of about the same strength have the odd fight or quarrel"*

Participants in Secondary Two were presented with the same definition, but "*child*" was replaced by "*young person*", "*children*" by "*young people*", and "*often*" by "*frequently*".

Types of victimisation (name calling, threats etc.), location of bullying, characteristics of bullies, frequency of bullying others, and frequency of helping others who are being bullied were determined by means of checklists included in the questionnaire, based again on those used by Whitney and Smith (1993). Slight modifications were made to these in order that they be as clear as possible, hence for example "*I had rumours*

spread about me" was altered to "*Nasty stories were spread about you*". In addition, "*Your belongings were damaged*" and "*You were forced to do something you did not want to do*" were added to the checklists as these items have been validated in previous research carried out in Scotland (McLean, 1994).

Duration of victimisation was measured by asking bullied children *"How long ago did the bullying start?"*, with forced choice responses of "*1 – 4 weeks*", "*1 – 3 months*", "*3 – 6 months*", and "*more than 6 months*". These choices were based on previous research indicating they represent important time periods with respect to appraisals of bullying (Hunter and Boyle, 2002).

Details of how victims coped with bullying were measured using Halstead, et al.'s (1993) adolescent version of the Ways of Coping Checklist (WCCL). As Halstead et al. (1993) used an older American sample, several individual items were reworded to make them more applicable to the current sample. For example, "*Bargained or compromised to get something good or positive from the situation*" was altered to "*Worked things out to get something good or positive from the situation*" in order that younger children in the current sample might be more likely to understand the item. Children were asked: "*If you were bullied <u>within the last month,</u> how did you cope with it?".* Children who had not been victimised during the preceding month also completed the coping section, but were asked to imagine "*a recent disagreement or argument you have had with a friend or someone your age*" and to fill in the coping items with reference to this. The purpose of this was to ensure that bullied and non-bullied pupils finishing the survey at the same time, thereby preventing the students from identifying which of their peers were victims. The coping measure consisted of 35 items, each of which was an

individual coping strategy, and employed a 4-point Likert-type scale ranging from 1 ("*did not use*") to 4 ("*used very often*").

Control appraisals were measured by asking pupils "*Do you feel that you can stop the bullying?*" with the response format "*Yes*", "*No*", and "*Don't know*". This measure of Control appraisal is the same as that used by Hunter and Boyle (2002), except for the addition of a "*Don't know*" response category. This third category was included here (and in the measures of threat and challenge below) to allow investigation of the effects that appraisal ambiguity might have upon coping strategy use.

Appraisals of Threat and Challenge were measured using the same format as for Control appraisals. However, the question asked of the children was "*Do you think that anything <u>bad</u> will happen to you as result of being bullied?*" for Threat appraisals, and "*Do you think that anything <u>good</u> will happen to you as result of being bullied?*" for Challenge appraisals. The same responses as were used to measure control were used for both Threat and Challenge: "*Yes*", "*No*", and "*Don't know*". The threat and challenge questions themselves were based on the work of Ptacek and his colleagues (Ptacek, Smith and Dodge, 1994; Ptacek, Smith and Zanas, 1992), and aimed to capture the essence of what Threat and Challenge appraisals actually represent according to Lazarus and Folkman (1984). Although these items have face validity with respect to the constructs they aim to examine, they had not previously been used in research examining victims of school bullying. As a consequence, open-ended questions were added to each of the two items asking pupils to specify what good or bad things they had in mind, to help develop a better understanding of the types of threats and challenges pupils themselves see as relevant in a bullying context.

Procedure

The questionnaires were administered to whole classes by the researcher in all but one school where staff preferred to administer the questionnaires themselves. Once all participants had been reassured about confidentiality, and informed that the questionnaire was anonymous, they were read aloud the definition of bullying provided at the start of the questionnaire. Following this, the whole questionnaire was read out item by item to primary school children, whereas secondary school children were asked to complete the questionnaire with the researcher in the room to answer any questions. All participants were asked to omit items on the coping strategy part of the questionnaire if they did not understand them.

Results

Results are presented in three parts. First are results from the confirmatory factor analyses conducted to examine the factor structure of the adolescent version of the Ways of Coping Questionnaire (Halstead et al., 1993). Also included in the first section are statistics examining the influence of variables such as School-Stage, gender, frequency of bullying etc. upon coping. Second, the content of pupils' threat and challenge appraisals are examined. Finally, we present the results of analyses examining the relationships between coping strategies and appraisals.

Part One: Confirmatory Factor Analyses

Before analysing the coping items, the data was screened in two stages. First, following the recommendations of Kline (1998), pupils who failed to complete more than 90% of the coping items were not used, resulting in data from 21 students in P5 (14% of P5s),

12 in P7 (10% of P7s), and 7 from S2 (4% of S2s) being dropped. Second, because pupils were told to omit items they did not understand, each item was then screened for missing data. This process revealed that item PF8 ("Tried not to burn your bridges behind you, tried to have different possibilities open") was omitted by 24% of students in P5 and 15% of those in P7, suggesting it is a poor indicator for the Primary school age group and this item was therefore excluded from further analysis. All other items had between 0 – 5.6% missing data, a satisfactory level (Kline, 1998). The remaining missing data was estimated according to the mode response for each particular item.

The data was examined to see how well it fit the four-factor model confirmed by Halstead et al. (1993) (see Table 3). Responses of those pupils who indicated having been bullied at least "*once or twice this term*" were analysed using AMOS 4.01 (Arbuckle, 1999). Previous researchers (e.g. Whitney and Smith, 1993) have not viewed bullying occurring "*once or twice this term*" as indicative of bullying. However, we feel that since students are presented with a definition of bullying at the beginning of the questionnaire (which includes the necessary preconditions of intent, reoccurrence, and imbalance of power) it does not make sense to exclude pupils from analysis on the basis that they were only bullied "*once or twice*". However, responses from pupils who experienced no bullying were <u>not</u> used since these pupils completed the coping measure with reference to a different problem, specifically "*a recent disagreement or argument*".

The model displayed a good level of fit (see Table 5). The CMIN/DF ratios of 1.648 is below the recommended maximum of 2 – 3 (Tabachnick and Fidell, 1996). RMSEA was 0.059, again suggesting good levels of fit (Edwards and O'Neill, 1998). Finally, the IFI, TLI and CFI were all above the recommended minimum criterion level of 0.95

(Edwards and O'Neill, 1998) ranging from 0.969 to 0.973. The final model is shown in Figure 2.

Table 5 about here

Three of the scales demonstrated good internal reliability (Cronbach's alpha > .70) and one, Avoidance, demonstrated poor reliability (Cronbach's alpha = .28). None of the scales were highly correlated with any another. The problem of reliability may be a result of too small a pool of Avoidance items, or perhaps they are inappropriate for examining the coping of students in respect to bullying. However, confirmation of the model suggests that this sub-scale *is* a basic mode of coping, and as such it is retained for analysis[1].

Figure 2 about here

Following the confirmatory factor analysis, factor scores were calculated according to the factor score weights provided by AMOS 4.01.

Demographic Variables and Coping

As above, the coping strategies reported by *all* children who indicated victimisation were included in the present analyses. In addition to the rationale presented above, this allowed us to compare the coping strategy use of pupils who appear to cope more effectively with bullying (i.e. those only bullied once or twice, rather than over and over again) to that of children who appear to cope less effectively.

Four separate two-way analyses of variance (ANOVAs) were performed on the factor scores to examine the effects of gender and School-Stage (*P5, P7, S2*) upon use of each of the four coping factors. There were no significant interactions ($p>0.05$). An effect of gender was present only on the Seeks Social Support factor (see Table 6), which girls reported using significantly more than did boys, $F(1, 178) = 4.31$, $p<0.05$.

School-Stage influenced the use of Seeks Social Support coping, $F(2, 178) = 6.37$, $p<0.01$. Post-hoc Tukey's HSD indicated that P5 students reported using more Seeks Social Support coping than either P7 or S2 pupils (see Table 7). In addition, School-Stage also influenced the use of Problem Focused coping, $F(2, 165) = 4.85$, $p<0.01$. Post-hoc Tukey's HSD indicated that P7 pupils used significantly less Problem Focused coping than P5 students (see Table 7).

Table 6 about here

Table 7 about here

Duration and Frequency of Victimisation

Four separate two-way analyses of variance (ANOVAs) were performed to examine the effects of duration and frequency upon use of each of the three coping factors. Duration was dichotomised as short- and longer-term, with short term being less than 4 weeks and longer-term being more than 4 weeks. This was carried out due to sample size, and because these time periods have been reported as potentially important time periods for coping (Hunter and Boyle, 2002). Frequency was dichotomised as frequent and infrequent, with frequent being those students reporting victimisation "sometimes" or

more often this term, and infrequent representing those students reporting victimisation "once or twice" this term. This allowed those children usually regarded as being bullied (the "frequent" group) to be compared with those who are not, yet who are often victims of peer aggression over extended time periods. Means and Standard Deviations are presented in Table 8.

Table 8 about here

Results indicated no significant interactions between duration and frequency for any of the coping factors. Additionally, there were no main effects of bullying duration on coping.

There was a main effect of frequency on both Wishful Thinking, $F(1, 168) = 6.71$, $p<0.05$, and Avoidance, $F(1, 169) = 7.46$, $p<0.01$. These effects indicated that when victims are frequently bullied they report significantly more Wishful Thinking and Avoidance than when they are bullied infrequently.

Part Two: Appraisal Content

The second aim of this study was to examine the content of child and adolescent appraisals concerning bullying. Recall that, to measure threat appraisals, all pupils were asked "*Do you think that anything <u>bad</u> will happen to you as result of being bullied?*" and were asked "*Do you think that anything <u>good</u> will happen to you as result of being bullied?*" to measure challenge appraisals. Those who answered "*yes*" to either question were then asked to say what 'good' or 'bad' things they thought might happen.

Examination of the responses provided by children allowed the development of two six-category classification systems: one for challenge appraisals and one for threat appraisals. The first author and three Research Assistants (RAs) independently coded all responses to examine inter-rater reliability. The RAs were asked to go through the challenge and threat appraisals given by children and to classify them according to the category descriptions in Table 9. If children's statements included two or three separate "*good*" or "*bad*" things, RAs were asked to code only the first statement provided, as it was assumed this was the most salient "*good*" or "*bad*" appraisal. Good inter-rater reliabilities for both Challenge (Kappa = 0.92) and Threat (Kappa = 0.89) were achieved.

Table 9 about here

Table 9 reveals that there are some challenges and threats which are more salient than others. With regards to challenges, children most often referred to *personal growth* issues (44%), often making reference to the ways in which being bullied might benefit them. For example, one pupil wrote "*Some people can get stronger and believe in their self more after being bullied*". Pupils also referred to the fact that they would gain experience in coping with bullying by being a victim (19%), experience which would benefit them in future, for example "*You would be experienced and know what to do if the situation happens again*". Other challenge appraisals referred to the fact that the bullying could stop ("*It might get sorted out*"), that the experience of being bullied would put people off bullying others ("*I'll not bully anyone else as I know how they'd feel, which is quite good*") and that they may be able to become friends with the bully ("*Become friends, it <u>has</u> happened*", sic).

Turning to threat appraisals, two types of appraisal were most prevalent. First, the idea that pupils would suffer negative psychological outcomes as a result of being bullied (38%), as highlighted by one pupil's statement that "*You end up having less self confidence and you feel like a nobody*" and another's that "*You might kill yourself to get away from being bullied*". Second, pupils were concerned about potential physical consequences of being bullied (28%), for example "*You might get badly beaten up*". Pupils also related concerns surrounding a potential worsening of the bullying ("*They will tell all their friends to bully me too*") and becoming lonely or isolated ("*You will feel all alone and you don't have any friends in the world*"). Finally, a small number of pupils (4%) related concerns that being bullied would actually encourage them to become bullies themselves: in the words of one child, "*You may start to become a bully and to try and put the bully through what you went through*".

The open-ended responses to the challenge and threat items thus supported the content validity of the measures with respect to Lazarus's theory: threat appraisals specifically referred to the anticipation of future damage to one's well-being or goals, while challenge appraisals emphasise the potential for mastery or gain (Lazarus and Launier, 1978).

Part Three: Appraisal and Coping

The third and final aim of the research was to examine the relationships between appraisals and coping strategy use. This was achieved by carrying out a 3 X 3 X 3 analysis of variance for each of the four coping factors, with each analysis of variance

examining the effects of control ("yes", "no", "don't know"), challenge ("yes", "no", "don't know") and threat ("yes", "no", "don't know")[2].

There were no significant main effects on Avoidance coping according to control, threat and challenge appraisals.

For both Problem Focused coping [$F(2, 164) = 3.29$, $p<0.05$] and Seeks Social Support coping [$F(2, 175) = 3.86$, $p<0.05$] main effects of challenge appraisal were found. Post-hoc Tukey's HSD comparisons indicted that in both cases more coping was used in response to a "don't know" appraisal than used in response to a "no" appraisal. Thus, it appears that if the positive outcomes of a bullying encounter are ambiguous, significantly more Problem Focused and Seeks Social Support coping strategies are used compared to when it is appraised as a situation where there will definitely be no positive outcomes.

With respect to Wishful Thinking coping strategies, both control [$F(2, 168) = 3.70$, $p<0.05$] and challenge [$F(2, 168) = 5.45$, $p<0.01$] appraisals influence the degree to which this was used. Post-hoc Tukey's HSD comparisons indicated that pupils who appraised themselves as having "no" control over bullying used more Wishful Thinking than pupils who felt that "yes" they did have control over the situation. Furthermore, pupils who were unsure of whether there were positive outcomes or not used significantly *less* Wishful Thinking than those saying there definitely were positive outcomes.

Discussion

The factor structure of Halstead, Johnson and Cunningham's (1993) adolescent version of the Ways of Coping Checklist was confirmed in the present sample of child and adolescent victims of bullying. These four factors (Wishful Thinking, Seeks Social Support, Problem Focused and Avoidance) revealed interesting associations with not only gender and School-Stage, but also with frequency of bullying. Analysis of the content of pupils' threat and challenge appraisals supported the content validity of the single-item measures used, as well as providing an insight into the types of threat and challenge appraisals which are most salient in this age group. Finally, coping strategy use appeared to vary according to the different appraisals children made, although this was only true for the Wishful Thinking, Problem Focused and Seeks Social Support factors.

Confirmation of Problem Focused, Seeks Social Support, Wishful Thinking and Avoidance coping suggests these may be basic modes of coping. Three other studies examining coping in children and adolescents (Ayers, et al., 1996; Causey and Dubow, 1992; Halstead et al., 1993) have also reported Seeks Social Support, Avoidance and Problem Focused factors, or equivalent, despite only Halstead et al. (1993) using the WCCL. Studies using the WCCL or the WCQ on adult samples have also confirmed the presence of these factors (Folkman et al., 1986; Parker et al., 1993; Sørlie and Sexton, 2001; Vitaliano et al., 1985), as have studies using other measures of coping (Amirkhan, 1990; Carver et al., 1989). Similarly, Wishful Thinking coping has been identified by Halstead et al. (1993) in their adolescent sample, and in the adult samples studied by Folkman and Lazarus (1985), McCrae (1984), Sørlie and Sexton (2001) and Vitaliano et al. (1985).

Girls reported greater use of social support than boys – the only gender difference in coping in the present sample. In adult populations, several studies have found that women engage in more Social Support Seeking than do men (Bjork and Cohen, 1993; Carver et al., 1989; Endler and Parker, 1990; Ptacek et al., 1994; Vingerhoets and Van Heck, 1990). This trend has generally been supported in studies of children's coping strategy use (Halstead et al., 1993; Phelps and Jarvis, 1994; Recklitis and Noam, 1999; Rossman, 1992), with some exceptions (Band and Weisz, 1988; Bruder-Mattson and Hovanitz, 1990; Gomez, 1997; Vitaliano et al., 1985).

Students in P5 reported using more Social Support coping strategies than pupils in P7 or S2. Rossman (1992) found that children between the ages of 6 and 12 were less willing to use parents and guardians for support as they grew older, and Kliewer (1991) also reports use of both Problem- and Emotion-Focused Support to decrease between the ages of 7 and 10. In contrast to the support factor used by Rossman (1992), the Seeks Social Support factor in the current study is made up of items which do not specifically refer to adults being the source of social support and this suggests, in contrast to Ayers et al. (1996), that as children mature they are less willing to seek help from other people in general, whether they be family members or otherwise. This possibility is supported by Kliewer (1991), as no mention is specifically made of parental support being sought in her descriptions of the coping factors she uses.

In addition to the developmental trend away from Social Support coping, it was found that children who had been bullied for over four weeks reported using less Social Support than those bullied for up to four weeks. This supports findings from

longitudinal research indicating that children who are persistently bullied use significantly less social support than children who are bullied over shorter periods of time (Smith and Talamelli, 2001). While Smith and Talamelli (2001) recommend training children in assertiveness and friendship skills, the developmental trend away from seeking help suggests it may also be important for students in Secondary schools to be directed toward, and encouraged to use, anonymous help and advice agencies. If they are unwilling to seek help from those around them, teenagers may be more prepared to take advice from websites, such as that provided by the Anti-Bullying Network in Scotland (www.antibullying.net), or anonymous helplines, such as Childline. While not advocating that students should be left to cope on their own, the evidence from this study suggests that direction towards these kinds of resources may prove valuable.

With respect to both Wishful Thinking and Avoidance coping, children who reported being bullied "sometimes or more often this term" used more Wishful Thinking and Avoidance than children who reported experiencing bullying less frequently ("once or twice this term"). Again, given the cross-sectional nature of the data, it is impossible to say whether this is a cause or a consequence of bullying, and longitudinal data is required to resolve this. However, using Wishful Thinking coping has been associated with negative psychological adjustment (Coyne, Aldwin, and Lazarus, 1981; Stern and Zevon, 1990; Vitaliano et al., 1985) as has Avoidance coping (Mattlin, Wethington and Kessler, 1990; Sandler, Kim-Bae and MacKinnon, 2000; Sandler, Tein and West, 1994) suggesting that these are likely to be maladaptive ways of coping with bullying.

Students in P7 reported using significantly less Problem Focused coping strategies than students in P5. However, S2 students did not differ from either P5 or P7 pupils. The reason for this dip in Problem Focused coping strategy use at the P7 stage was unclear and remains a matter for future investigation. However, it appears that there must be some systematic difference in the type of bullying faced by children in P7 compared to P5, a difference which is reduced by the time pupils have reached S2. One possibility may be that P7 pupils are bullied by less older pupils, since they are the eldest in their schools, and that S2 pupils see an increase in bullying by older pupils as they are no longer the eldest in their schools.

Turning to the appraisal results, it was interesting that pupils in this study did not focus exclusively on negative aspects of what is often a distressing situation. Many of them recognised that being bullied could lead to positive psychological development, and that the situation afforded the possibility of learning a new coping skill. However, it was also clear that pupils did have several clear concerns regarding the negative impact that bullying might have on them. For example, pupils not only worried about being lonely and becoming unhappy, but also worried about potential physical hurt and the possibility that they might become bullies themselves.

None of the appraisals measured in this study influenced Avoidance coping, perhaps indicating that it is influenced by other, more salient, appraisals. For example, how effectively students feel they can cope with a situation may be more relevant when considering Avoidance coping since perceived inability to cope might be associated with avoiding thinking about, or dealing, with a stressor. However, the metric used to measure Avoidance coping here had poor reliability, perhaps indicating that more

appropriate items are required to adequately examine relationships with this coping factor. For example, it may be necessary to introduce items which are specifically related to bullying such as avoiding where bullies congregate, or avoiding drawing attention to oneself in crowded areas.

An interesting finding which emerged from the data was that the ambiguity of challenge appraisals had an influence on three of the four coping factors. First, if pupils were unsure of whether the situation afforded the possibility of a positive outcome they used more Seeks Social Support coping strategies than pupils who were sure there were no potentially positive outcomes. Figure 3 indicates that ambiguity may actually lead to pupils turning to others to help them ascertain whether or not they can gain something from the situation in which they find themselves.

Figure 3 about here

Pupils who were unsure of whether the situation afforded the possibility of a positive outcome also used more Problem Focused coping compared to pupils who felt certain that there were no positive outcomes likely. This may indicate that pupils who perceive there to be ambiguity of outcome approach the problem in such a way as to resolve the ambiguity. However, examining Figure 3, it is apparent that pupils who "don't know" whether there are positive outcomes to bullying use the same amount of Problem Focused coping as those who say it will definitely have positive outcomes. This suggests that it may not be ambiguity *per se* which is important here: rather, pupils who see no possibility of positive outcomes in bullying situations use less Problem Focused coping than other children. In order to encourage pupils to use Problem Focused coping

strategies to deal with bullying, such as the assertive strategies recommended by several authors (e.g. Salmivalli, 1999; Smith and Sharp, 1994), it may thus be useful to encourage challenge appraisals among children. For example, empowering the student by impressing upon them that they may learn something from the experience may encourage them to tackle it in a more constructive manner.

Finally, ambiguity also influenced the use of Wishful Thinking coping, though here it appears that pupils who feel there are positive outcomes to bullying use more wishful thinking than pupils who are unsure or who think there definitely are not (see Figure 3). This finding is counter-intuitive, as we would expect pupils who see no possibility of positive outcomes to engage in more Wishful Thinking as a distraction from the negative appraisal. However, given the content of the challenge appraisals cited by children in the current research, it may be that challenge appraisals and Wishful Thinking coping are confounded to some degree, such that the "good" things which children hope to emerge from bullying are also the things which they are wishing for. Indeed, several of the items which make up the Wishful Thinking coping scale are similar to the challenge appraisals given by pupils (e.g. WT4, *Wished that the situation would go away or somehow be over with* is clearly similar to appraisals concerning the likelihood of bullying stopping).

Increased Wishful Thinking coping was also associated with a perceived lack of control. Similar results have been reported in studies of children and adolescents coping with other stressors (Band and Weisz, 1988; Blanchard-Fields and Irion, 1988; Hoffner, 1993) and suggest that if pupils can be helped to regain a sense of control over events it may contribute toward less maladaptive coping strategy use.

The present study is limited by the reliance on self-report measures, which tend to result in higher prevalence rates compared with other measures of bullying (Boyle, 1996). However, given the nature of processes such as Wishful Thinking coping, the use of self-report data is unavoidable to some extent. Nevertheless, future studies should attempt to cross-validate coping data with peer- or teacher-nomination data, most obviously when examining more overt coping behaviours such as seeking help or hitting back.

The use of cross-sectional data is a further limitation, and clearly longitudinal data is required to examine issues of causality between the use of certain coping strategies and variables such as duration and frequency of bullying.

Finally, the present study examined appraisals using relatively basic measurement items and responses (e.g. "yes", "no", "don't know"). More sophisticated measurement of pupils' appraisals regarding being bullied would be advantageous. For example, the open-ended responses given by pupils in the current research could be used to develop multi-item appraisal scales, or alternatively they could form the basis of a more in-depth investigation of appraisal.

In conclusion, this study has confirmed the factor structure of an adolescent coping measure for use with children, aged between nine and fourteen years, who are the victims of peer aggression and bullying. Continuity with coping measures designed for older populations (Halstead et al., 1993; Folkman and Lazarus, 1985) should allow researchers to examine how coping processes develop, and compare, over wide age-

ranges. The content of child and adolescents' appraisals regarding bullying were also explored, providing a foundation for future research. Finally, results suggest that the ways in which children cope are not only associated with variables such as school-stage, gender and frequency of victimisation, but also with cognitive appraisals.

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Footnote 1: We thank an anonymous reviewer of an earlier draft of this manuscript for bringing this to our attention.

Footnote 2: Only main effects were examined here due to the small n (<5) of several cells for interactions.

Table 1: Factor analytically derived coping strategy dimensions using Lazarus and colleagues' measures

Study and Measure	Sample	Factor Structure
Folkman and Lazarus (1985) (WCQ)	108 undergraduates	8 Factors: Problem-Focused Coping, Wishful Thinking, Distancing, Emphasising the Positive, Self-Blame, Tension Reduction, Self-Isolation, Seek Social Support
Folkman et al. (1986) (WCQ)	75 married couples (N=150)	8 Factors: Confrontive, Distancing, Self-Control, Seeking Social Support, Accepting Responsibility, Escape-Avoidance, Planful Problem-Solving, Positive Reappraisal
Aldwin and Revenson (1987) (WCQ)[a]	291 adults	8 Factors: Instrumental Action, Support Mobilisation, Escapism, Cautiousness, Minimisation, Self-Blame, Negotiation, Seeking Meaning
Parker et al (1993) (WCQ)	530 undergraduates	4 Factors: Distancing/Avoidance, Confrontive/ Seeking Social Support, Problem Focused, Denial
Sørlie and Sexton (2001) (WCQ)	924 adult surgical patients	5 Factors: Wishful Thinking, Goal Oriented, Seeking Support, Thinking It Over, Avoidance
Vitaliano et al. (1985) (WCCL)[b]	93 adult psychiatric outpatients; 62 spouses of Alzheimer's patients; 425 medical students	5 Factors: Problem-Focused, Seeks Social Support, Blamed Self, Wishful Thinking, Avoidance
Halstead et al.(1993) (WCCL-R)[c]	306 children, mean age 15 years	4 Factors: Problem-Focused, Seeks Social Support, Wishful Thinking, Avoidance
McCrae (1984) (WCCL and own items)[b]	255 adults	28 Factors: Hostile Reaction, Rational Action, Seeking Help, Perseverance, Isolation of Affect, Fatalism, Expression of Feelings, Positive Thinking, Distraction, Escapist Fantasy, Intellectual Denial, Self-Blame, Taking One Step at a Time, Social Comparison, Sedation, Substitution, Restraint, Drawing Strength from Adversity, Avoidance, Withdrawal, Self-Adaptation, Wishful Thinking, Active Forgetting, Humour, Passivity, Indecisiveness, Assessing Blame, Faith

[a] – Ways of Coping Questionnaire; [b] – Ways of Coping Checklist; [c] - Ways of Coping Checklist – Revised.

Table 2: Factor analytically derived coping strategy dimensions using measures other than those of Lazarus and his colleagues

Study and Measure	Sample	Factor Structure
Amirkhan (1990) (CSI)[a]	1831 adults	3 Factors: Problem-Solving, Seeking Support, Avoidance
Ayers et al. (1996) (CCSC)[b]	320 children, mean age 10 years	4 Factors: Active, Distraction, Avoidance, Support Seeking
Billings and Moos (1984)	422 depressed adults	3 Factors: Problem-Focused, Emotion-Focused, Appraisal-Focused
Carver et al. (1989) (COPE)	978 undergraduates	14 Factors: Active Coping, Planning, Suppress Competing Activities, Restraint, Seek Instrumental Social Support, Seek Emotional Social Support, Positive Reinterpretation/Growth, Acceptance, Turn to Religion, Focus on/Vent Emotions, Denial, Behavioural Disengagement, Mental Disengagement, Alcohol and Drug Disengagement
Lyne and Roger (2000) (COPE)	587 adults	3 Factors: Emotion-Focused, Active, Avoidance
Phelps and Jarvis (1994) (COPE)	484 students in 12th grade	4 Factors: Active, Avoidant, Emotion-Focused, Acceptance
Causey and Dubow (1992) (SRCM)[c]	481 children, 4th to 6th grade	5 Factors: Seeking Social Support, Self-Reliance/ Problem Solving, Distancing, Internalising, Externalising
Endler and Parker (1990) (MCI)[d]	559 undergraduates	3 Factors: Task-Oriented, Emotion-Oriented, Avoidance-Oriented
Rossman (1992) (CPCQ)[e]	345 children, 6 to 12 years	6 Factors: Caregiver, Distraction/Avoidance, Distress Peer, Self-Calming, Anger

[a] – Coping Strategy Indicator; [b] – Children's Coping Strategies Checklist; [c] – Self-Report Coping Measure; [d] – Multidimensional Coping Inventory; [e] – Child Perceived Coping Questionnaire.

Table 3: Halstead et al.'s (1993) confirmed factor structure

Factor
Problem Focused
PF1 *Changed or grew as a person in a good way*
PF2 *Learned something positive from the experience*
PF3 *Changed something about yourself so you could deal with the situation better*
PF4 *Made a plan of action and followed it*
PF5 *Changed something so things would turn out alright*
PF6 *Stood up for what you wanted*
PF7 *You knew what had to be done, so you tried harder to things work*
PF8 *Tried not to burn your bridges behind you, tried to have different possibilities open*
PF9 *Tried not to act too quickly or follow your first hunch*
PF10 *Just took things one step at a time*
PF11 *Came up with a couple of different solutions to the problem*
PF12 *Worked things out to get something good or positive from the situation*
PF13 *Thought about something good that could come out of the whole thing*
PF14 *Accepted the next best thing to what you wanted*
PF15 *Didn't let strong feelings change what you did*
Seeks Social Support
SSS1 *Accepted sympathy and understanding from someone*
SSS2 *Let your feelings out somehow*
SSS3 *Asked someone you look-up to for advice and followed it*
SSS4 *Talked to someone about how you were feeling*
SSS5 *Talked to someone to find out more about the problem*
SSS6 *Talked to someone who could do something to help with the problem*
Wishful Thinking
WT1 *Wished you felt better about yourself*
WT2 *Wished that you could change what happened*
WT3 *Wished that you could change the way you felt*
WT4 *Wished that the situation would go away or somehow be over with*
WT5 *Hoped a miracle would happen*
WT6 *Daydreamed or imagined a better place than the one you were in*
WT7 *Had fantasies or wishes about how things might turn out*
WT8 *Thought about fantastic or unreal things (like winning the lottery or being a pop star) that made you feel better*
WT9 *Felt bad you could not avoid the problem*
WT10 *Got angry at the people or things that caused the problem*
Avoidance
AV1 *Kept your feelings to yourself*
AV2 *Kept others from knowing how bad things were*
AV3 *Went on as if nothing had happened*
AV4 *Tried to forget the whole thing*

[a] – All items are shown here as they were presented to the children in the present study, i.e. the wording of certain items has been modified from Halstead et al.'s (1993) originals to make them more accessible to the younger age group.

Table 4: Participants[a]

School-Stage	Gender				Total	
	Male		Female			
	N	*%*	*N*	*%*	*N*	*%*
P5	67	44	85	56	152	35
P7	61	51	58	49	119	27
S2	80	48	87	52	167	38
Total	208	48	230	52	438	100

[a] 21 participants are omitted as they failed to indicate gender.

Table 5: Fit indices and reliabilities (Cronbach's alpha) of sub-scales

Fit Indices	
χ^2 *(d.f. = 521)*	866.862
CMIN/DF	1.648
RMSEA	0.059
IFI	0.973
TLI	0.969
CFI	0.973
Reliabilities	
Problem Focused	.82
Seeks Social Support	.77
Wishful Thinking	.73
Avoidance	.28

Table 6:
Coping strategy means and standard deviations for all victims using derived factor scores, by gender

Gender	Problem Focused		Seeks Social Support		Wishful Thinking		Avoidance	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Male (N=78)	2.11	0.54	1.01_{a}	0.37	1.85	0.50	1.13	0.43
Female (N=97)	2.02	0.57	1.11_{b}	0.40	1.92	0.46	1.08	0.43

Note Different subscripts in a column indicate that means differ significantly.

Table 7:
Coping strategy means and standard deviations for all victims using derived factor scores, by school-stage

School-Stage	Problem Focused		Seeks Social Support		Wishful Thinking		Avoidance	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
P5 (N=50)	2.21_{a}	0.47	1.20_{a}	0.35	1.92	0.48	1.02	0.38
P7 (N=39)	1.86_{b}	0.56	1.02_{b}	0.41	1.82	0.53	1.10	0.43
S2 (N=63)	2.05_{ab}	0.59	0.98_{b}	0.38	1.91	0.51	1.19	0.45

Note Different subscripts in a column indicate that means differ significantly.

Table 8:
Means and standard deviations for all coping factors using derived factor scores, by duration and frequency

Duration	Frequency	Problem Focused		Seeks Social Support		Wishful Thinking		Avoidance	
		Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Short-Term	*Infrequent*	2.28	0.53	1.16	0.36	1.70_{a}	0.36	1.70_{a}	0.36
	Frequent	1.90	0.56	1.15	0.36	2.00_{b}	0.57	2.00_{b}	0.57
Longer-Term	*Infrequent*	2.01	0.58	1.01	0.42	1.89_{a}	0.43	1.89_{a}	0.43
	Frequent	2.04	0.54	1.08	0.37	2.04_{b}	0.53	2.04_{b}	0.53

Note Different subscripts in a column indicate that means differ significantly.

Table 9: Challenge and threat appraisal content

Appraisal	Content Category	Category Description	%
Challenge	*Personal Growth*	Issues surrounding improving self-perception, e.g. becoming more confident, or "stronger" in some way	44
	Learning How to Deal with Bullying	Learning hot to deal with bullying, e.g. when encountering bullying in future, or perhaps being able to tell someone else what to do	19
	Bullying Stops	Either the child will not be bullied again, or the bully will not bully again	13
	Learn to Not Bully Others	Learning to not bully other children	11
	Making Friends	Making friends with the bully	9
	Other	Any other response	4
Threat	*Psychological Consequences*	The bullying will have psychological consequences, e.g. loss of confidence or suicidal ideation	38
	Physical Consequences	The bullying will have physical repercussions, e.g. being physically hurt or injured	28
	Increasing Bullying	The bullying will result in more bullying	15
	Social Isolation	The bullying will result in, e.g. loss of friends or loneliness	11
	Becoming a Bully	The victim feels they might start to bully other pupils	4
	Other	Any other response	5

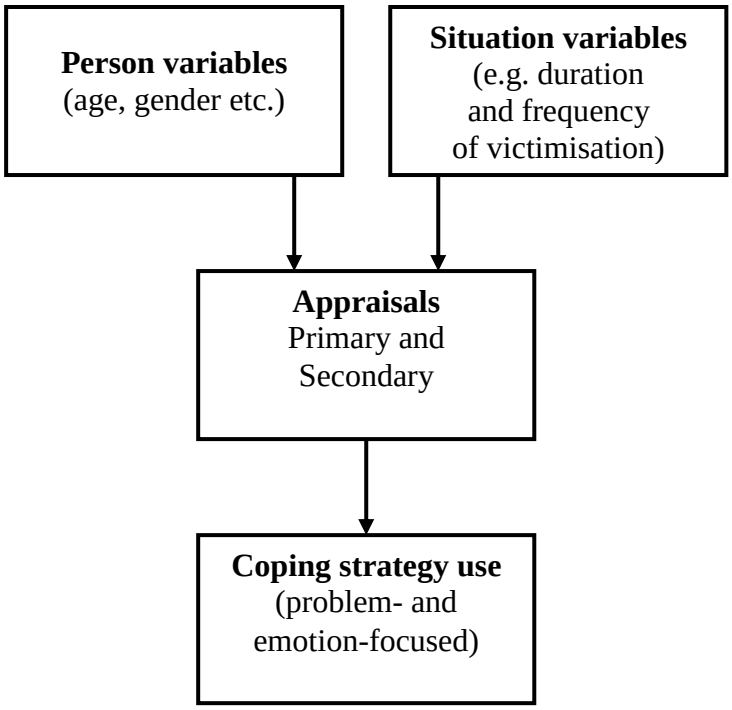
Figure 1: Transactional model of coping

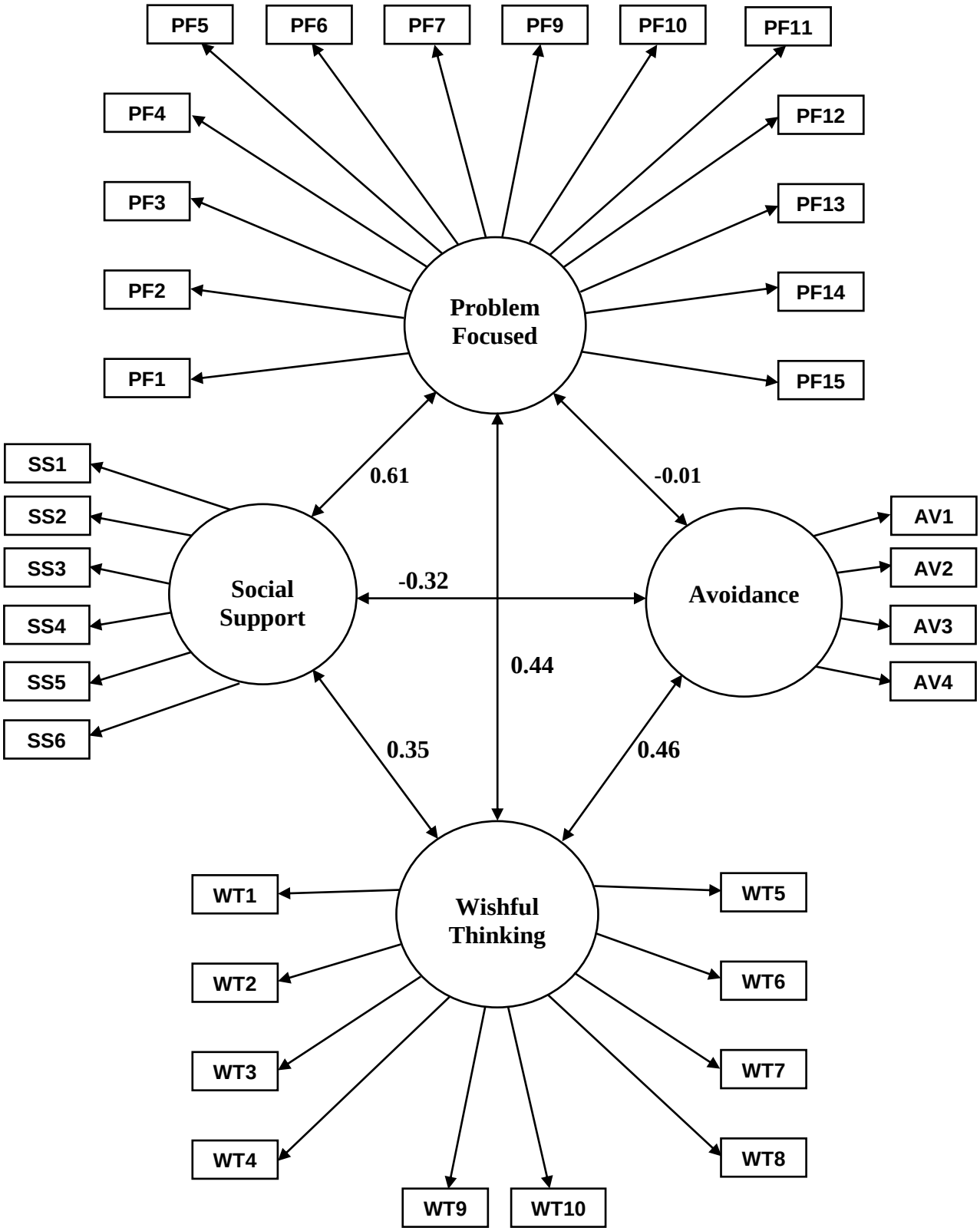
Figure 2: Confirmed coping structure, showing correlations between factors

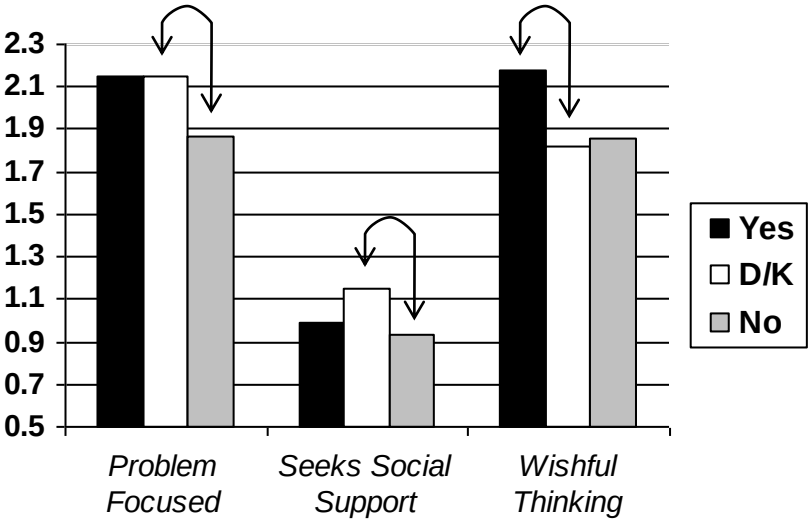
NB. Error terms associated with all items were included in the confirmatory factor analysis, but have been omitted from this figure for the purpose of clarity of presentation. Standardised regression weights of individual items are omitted for the same reason.

Figure 3: Challenge appraisals and coping strategy use

NB. Arrows indicate significant differences ($p < 0.05$).


Person variables
(age, gender etc.)
Situation variables
(e.g. duration
and frequency
of victimisation)
Appraisals
Primary and
Secondary
Coping strategy use
(problem- and
emotion-focused)


PF5
PF6
PF7
PF9
PF10
PF11
PF4
PF12
PF3
PF13
PF2
PF14
PF1
PF15
Problem Focused
SS1
SS2
SS3
SS4
SS5
SS6
Social Support
AV1
AV2
AV3
AV4
Avoidance
0.61
-0.01
-0.32
0.44
0.35
0.46
WT1
WT2
WT3
WT4
WT9
WT10
WT5
WT6
WT7
WT8
Wishful Thinking


2.3
2.1
1.9
1.7
1.5
1.3
1.1
0.9
0.7
0.5
Problem Focused
Seeks Social Support
Wishful Thinking
Yes
D/K
No